REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The Office Action of September 17, 2002 has been received and its contents carefully reviewed.

Applicants appreciate the indication of allowable subject matter in claims 7, 17, 19, 20, 24 and 28. By this Amendment, Applicant amends claims 1-31 and adds new claims 32-71. Applicants have also amended claims 7, 17, 19, 20, 24 and 28 to incorporate the allowable subject matter as indicated by the Examiner in proper form. Accordingly, claims 1-71, are currently pending in the present application. Reexamination and reconsideration of the application, as amended and in view of the following remarks, are respectfully requested.

In the Office Action dated September 17, 2002, the Examiner requested Applicants to resubmit the references cited in the 1449 including any EPO search report; objected to claims 1, 9 and 21 because of grammatical errors; objected to claims 5, 8, 13, 14, 15, 18, 25-27 and 29-30 under 37 C.F.R. §1.75(c) as being in improper form; rejected claims 1-31 under 35 U.S.C. §112, second paragraph; rejected claims 1-4, 6, 9-12, 16, 21-23 and 31 under 35 U.S.C. § 102(e) as being anticipated by Fujimori et al (U.S. Patent No. 5,771,084); and rejected claims 1-4, 9-12, 21-22 and 31 under 35 U.S.C. §103(a) as being unpatentable over Fujimori et al . patent ('093). [1]

The references listed on the PTO-1449 were previously submitted, however, they are being re-submitted herewith, as requested by the Examiner.

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[1] In the Office Action, the rejection of claims 1-4, 9-12, 21-22 and 31 is made over "Fujimori et al. patent ('093)". (Office Action, p. 3). However, the patent number of the Fujimori et al. reference cited by the Examiner is 5,771,084,which clearly does not end in '093. Therefore, Applicants assume that the Examiner

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In response to the objection to claims 1, 9 and 21 because of grammatical errors, the objection to claims 5, 8, 13, 14, 15, 18, 25-27 and 29-30 under 37 C.F.R. §1.75(c) as being in improper form, and the rejection to claims 1-31 under 35 U.S.C. §112, second paragraph, Applicants submit that the objections and the rejection of these claims are moot in view of the claim amendments.

The rejection of claims 1-4, 6, 9-12, 16, 21-23 and 31 under 35 U.S.C. § 102(e) as being anticipated by Fujimori et al. is respectfully traversed and reconsideration is requested.

Claim 1 is allowable over the cited reference in that claim 1 recites a combination of elements including, for example, "deflecting elements on at least one of the substrates, wherein the deflecting elements are dielectric and are over electric conductive layers along the perimeter of each pixel." The cited reference, Fujimori et al, does not teach or suggest at least this feature of the claimed invention. Accordingly, Applicant respectfully submits that claim 1 and claims 2-4, 6 and 8, which depend from claim 1, are allowable over the cited reference.

Claim 9 is allowable over the cited reference in that claim 9 recites a combination of elements including, for example, "deflecting elements on at least one of the substrates, wherein the deflecting elements are dielectric and over the electric conductive layer and the area between the deflecting elements is filled with a supplemental coating." The cited reference, Fujimori et al, does not teach or suggest at least this feature of the claimed

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meant to recite a rejection of these claims over U.S. Patent No. 5,953,093, to Hirata et al., which is cited on Form PTO-892.

invention. Accordingly, Applicant respectfully submits that claim 9 and claims 11-12 and 16, which depend from claim 9, are allowable over the cited reference.

Claim 21 is allowable over the cited reference in that claim 21 recites a combination of elements including, for example, "wherein on at least one of the substrates the deflecting elements are dielectric and are provided over the electric conductive layer, wherein said deflecting elements." The cited reference, Fujimori et al, does not teach or suggest at least this feature of the claimed invention. Accordingly, Applicant respectfully submits that claim 21 and claims 22-23 and 31, which depend from claim 21, are allowable over the cited reference.

The rejection of claims 1-4, 9-12, 21-22 and 31 under 35 U.S.C. §103(a) as being unpatentable over Hirata et al is respectfully traversed and reconsideration is requested.

Claim 1 is allowable over the cited references in that claim 1 recites a combination of elements including, for example, "deflecting elements on at least one of the substrates, wherein the deflecting elements are dielectric and are over electric conductive layers along the perimeter of each pixel, wherein said deflecting elements." The cited references including Hirata et al, either singly or in combination, fail to teach or suggest at least these features. Accordingly, Applicant respectfully submits that claim 1 and claims 2-4, which depend from claim 1, are allowable over the cited reference.

Claim 9 is allowable over the cited reference in that claim 9 recites a combination of elements including, for example, "deflecting elements on at least one of the substrates, wherein the deflecting elements are dielectric and over the electric conductive layer and the area between the deflecting elements is filled with a supplemental coating, wherein said deflecting elements." The cited references including Hirata et al, either singly or in combination, fail to teach or suggest at least these features. Accordingly, Applicant

respectfully submits that claim 9 and claims 11 and 12, which depend from claim 9, are allowable over the cited reference.

Claim 21 is allowable over the cited reference in that claim 21 recites a combination of elements including, for example, "wherein on at least one of the substrates the deflecting elements are dielectric and are provided over the electric conductive layer, wherein said deflecting elements." The cited references including Hirata et al, either singly or in combination, fail to teach or suggest at least these features. Accordingly, Applicant respectfully submits that claim 21 and claims 22 and 31, which depend from claim 21, are allowable over the cited reference.

Applicant believes the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited. Should the Examiner deem that a telephone conference would further the prosecution of this application, the Examiner is invited to call the undersigned attorney at (202) 496-7500.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136. Please credit any overpayment to deposit Account No. 50-0911.

Respectfully submitted,

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MARKED UP VERSION OF THE AMENDED CLAIMS

1. (Amended) A liquid [Liquid] crystal display with plurality of pixels, [comprised of] comprising:

two plane substrates [(1), (2)] with electric conductive layers deposited on [the faced to each other] sides of the substrates [(1), (2)] facing each other, the electric conductive layers covered with aligning layers [(4)] and [with] liquid crystal filling the space between the substrates [(1), (2),] ; and

[having] deflecting elements [(5), (6) and, if required, black matrix, characterized in that] on at least [on] one of the [substrate] substrates, wherein the deflecting elements [(5), (6)] are dielectric and are [displaced] over electric conductive layers along the perimeter of each pixel.

2. (Amended) [Display] The liquid crystal display according to claim 1, [characterized in that] wherein the deflecting [dielectric] elements [(5), (6)] are made of material with the resistivity equal, or exceeding the resistivity of the liquid crystal.

3. (Amended) [Display] The liquid crystal display according to [claims 1-2]claim 1, [characterized in that,] wherein the deflecting [dielectric] elements [(5), (6)] are additionally [displaced] disposed within the area of each pixel.

4. (Amended) [Display] The liquid crystal display according to [claims 1 or 2]claim 1, [characterized in that, the said] further comprising a black matrix [is] made of deflecting [dielectric] elements [(5), (6)].

5. (Amended) [Display] The liquid crystal display according to [claims 1-4]claim 1, [characterized in that, deflecting] wherein the [dielectric] deflecting elements [(5), (6)] have [the] a height of at least about 0.1 microns [in the interval 0.1-1 value of the liquid crystal thickness].

6. (Amended) [Display] The liquid crystal display according to claim 1, [characterized in that,] wherein the deflecting [dielectric] elements [(5), (6)] are [displaced] on both substrates [(1), (2)] over the electric conductive layers.

7. (Amended) [Display according to claim 6, characterized in that, deflecting elements (5), (6) which are displaced over the electric conductive layers are made of different materials.]A liquid crystal display with plurality of pixels, comprising:

two plane substrates with electric conductive layers deposited on sides of the substrates facing each other, the electric conductive layers covered with aligning layers and liquid crystal filling the space between the substrates; and

deflecting elements on both of the substrates, wherein the deflecting elements are dielectric and of different materials and are over electric conductive layers along the perimeter of each pixel.

8. (Amended) [Display] The liquid crystal display according to [claims 1-7]claim 1, [characterized in that,] wherein the deflecting [dielectric] elements [(5),(6)] have varying height.

9. (Amended) A liquid [Liquid] crystal display with plurality of pixels, comprising: [comprised of]

two plane substrates [(1), (2)] with electric conductive layers deposited on [the faced to each other] sides of the substrates [(l), (2),] facing each other, the electric conductive layers covered with aligning layers [(4)] and [with] liquid crystal filling the space between the substrates [(1), (2), having] ; and

deflecting elements [(5), (6) and, if required, black matrix, characterized in that] on at least [on] one [substrate] of the substrates, wherein the deflecting elements are dielectric and [placed] over the electric conductive layer and the area between [them]the deflecting elements is filled with a supplemental coating [(7)].

10. (Amended) [Display] The liquid crystal display according to claim 9, [characterized in that,] wherein on the top of the supplementary coating, [(7)] an additional conductive layer is deposited.

11. (Amended) [Display] The liquid crystal display according to [claims 9 or 10]claim 9, [characterized in that,] wherein over the [said dielectric] deflecting elements [(5), (6)] and supplementary coating, [(7)] an additional layer is formed [made] of the material of the [said] deflecting [dielectric] elements [(5), (6)].

12. (Amended) [Display] The liquid crystal display according to claim 9, [characterized in that,] wherein the [said dielectric] deflecting elements [(5), (6)] are made of material with [the] resistivity equal, or exceeding that of the [said] liquid crystal.

13. (Amended) [Display] The liquid crystal display according to [claims 9-12]claim 9, [characterized in that,] wherein the deflecting [dielectric] elements [(5), (6)] are additionally [displaced] disposed within the area of each pixel.

14. (Amended) [Display] The liquid crystal display according to [claims 9 or 13]claim 9, [characterized in that, the said] further comprising a black matrix [is] made of deflecting [dielectric] elements [(5), (6)].

15. (Amended) [Display] The liquid crystal display according to [claims 9-14]claim 9, [characterized in that,] wherein the deflecting [dielectric] elements [(5), (6)] have [the] a height exceeding 0.1 microns [of the liquid crystal thickness].

16. (Amended) [Display] The liquid crystal display according to claim 9, [characterized in that,] wherein the deflecting [dielectric] elements [(5), (6)] are [displaced] on both substrates [(1), (2)] over the electric conductive layers.

17. (Amended) [Display according to claim 16, characterized in that, deflecting dielectric elements (5), (6) which are displaced over the electric conductive layers are made of different materials.] A liquid crystal display with plurality of pixels, comprising:

two plane substrates with electric conductive layers deposited on sides of the substrates facing each other, the electric conductive layers covered with aligning layers and liquid crystal filling the space between the substrates; and

deflecting elements on both of the substrates, wherein the deflecting elements are dielectric and of different materials and over the electric conductive layer and the area between the deflecting elements is filled with a supplemental coating.

18. (Amended) [Display] The liquid crystal display according to [claims 9-16]claim 9, [characterized in that,] wherein the deflecting [dielectric] elements [(5), (6)] have varying height.

19. (Amended) [Display according to claim 9, characterized in that, the supplementary coating (7) is made of the same material as the substrate.] A liquid crystal display with plurality of pixels, comprising:

two plane substrates with electric conductive layers deposited on sides of the substrates facing each other, the electric conductive layers covered with aligning layers and liquid crystal filling the space between the substrates; and

deflecting elements on at least one of the substrates, wherein the deflecting elements are dielectric and over the electric conductive layer and wherein the area between the deflecting elements is filled with a supplemental coating made of the same material as the substrate.

20. (Amended) [Display according to claim 19, characterized in that, on the top of the supplementary coating (7), which is made of the same material as the substrate, electric conductive layer is deposited.] A liquid crystal display with plurality of pixels, comprising:

two plane substrates with electric conductive layers deposited on sides of the substrates facing each other, the electric conductive layers covered with aligning layers and liquid crystal filling the space between the substrates; and

deflecting elements on at least one of the substrates, wherein the deflecting elements are dielectric and over the electric conductive layer and wherein the area between the deflecting elements is filled with a supplemental coating made of the same material as the substrate and wherein the electric conductive layer is deposited on the top of the supplementary coating.

21. (Amended) [The] A method for making liquid crystal display with plurality of pixels, comprising: [comprised of]

depositing electric conductive and aligning layers on [the faced to each other] sides of two plane substrates facing each other; [, of subsequent]

[filling liquid crystal in the space between the substrates, of; and]

forming deflecting elements; and [and, if required, color filters and black matrix,] [characterized in that]

providing a liquid crystal layer between the substrates,

wherein on at least [on] one of the substrates [substrate] the deflecting elements are [made of] dielectric and are [displaced] provided over the electric conductive layer.

22. (Amended) The method according to claim 21, [characterized in that,] wherein deflecting [dielectric] elements are made of material with [the] resistivity equal to or exceeding that of the liquid crystal.

23. (Amended) The method according to [claims 21 or 22]claim 21, [characterized in that,] wherein the deflecting [dielectric] elements are formed on both substrates.

24. (Amended) [The method according to claim 23, characterized in that, deflecting dielectric elements are formed of different materials.] A method for making liquid crystal display with plurality of pixels, comprising:

depositing electric conductive and aligning layers on sides of two plane substrates facing each other;

forming deflecting elements on both of the substrates; and

providing a liquid crystal layer between the substrates,

wherein on both of the substrates the deflecting elements are dielectric and made of different materials and are provided over the electric conductive layer.

25. (Amended) The method according to [claims 21-24]claim 21, [characterized in that,] wherein the area between the deflecting [dielectric] elements is filled with a supplementary coating.

26. (Amended) The method according to claim 25, [characterized in that,] wherein, on the top of the supplementary coating, an additional electric conductive layer is deposited.

27. (Amended) The method according to [claims 24 or 25]claim 24, [characterized in that,] wherein, on the top of the supplementary coating, an additional layer made of the material of the deflecting [dielectric] elements is deposited.

28. (Amended) [The method according to claim 21, characterized in that, the supplementary coating is made of the same material as the substrate.] A method for making liquid crystal display with plurality of pixels, comprising:

depositing electric conductive and aligning layers on sides of two plane substrates facing each other;

forming deflecting elements on at least one of the substrates; and

providing a liquid crystal layer between the substrates,

wherein on at least one of the substrates the deflecting elements are dielectric and made of the same material as the substrate and are provided over the electric conductive layer.

29. (Amended) The method according to claim 25, [characterized in that,] wherein, on the top of the supplementary coating, the electric conductive layer is deposited.

30. (Amended) The method according to [claims 21-23]claim 21, [characterized in that, the] further comprising forming a black matrix [is made] of the material of the deflecting [dielectric] elements.

31. (Amended) The method according to claim 21, [characterized in that,] wherein the deflecting [dielectric] elements are formed with the height exceeding 0.1 microns [of liquid crystal thickness].